For rowing Office use only	_
International Application No.	
International Filing Date	
Name of receiving Office and "PCT International Application"	

REQUEST					
1220201	International Filing Da	te			
The second are second that the present					
The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.	Name of receiving Office and "PCT International Application"				
	Applicant's or agent's	file reference ers maximum) 2950.07WO01			
	(if desired) (12 characte	ers maximum) 2950.07 VV O 0 1			
BOX NO. I TITLE OF INVENTION OPTICAL MATERIALS WITH SELECTED INDE	EX-OF-REFRACTI	ON			
Box No. II APPLICANT This person	n is also inventor	·			
Name and address: (Family name followed by given name; for a legal en The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of residen	Telephone No. (510) 668-5000				
NanoGram Corporation		Facsimile No. (510) 668-5009			
49040 Milmont Drive Fremont, California 94538		Teleprinter No.			
United States of America					
·		Applicant's registration No. with the Office			
State (that is, country) of nationality:	State (that is, country) US	of residence:			
This person is applicant for the purposes of: all designated States all designated the United States		the United States the States indicated in of America only the Supplemental Box			
Box No. III FURTHER APPLICANT(S) AND/OR (FURT	HER) INVENTOR(S)				
Name and address: (Family name followed by given name; for a legal en. The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of resident BRYAN, Michael A. 708 Blossom Hill Road, Suite 111 Los Gatos, California 95032 United States of America	the address indicated in this	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office			
State (that is, country) of nationality: US	State (that is, country) US	of residence:			
This person is applicant for the purposes of: all designated all designated the United States	ed States except States of America	the United States the States indicated in of America only the Supplemental Box			
Further applicants and/or (further) inventors are indicated	on a continuation sheet.				
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE					
The person identified below is hereby/has been appointed to act of the applicant(s) before the competent International Authorities	on behalf s as:	agent common representative			
Name and address: (Family name followed by given name; for a legal entire address must include postal code and name of the company of the code and name of t		Telephone No. (612) 349-5746			
Peter S. DARDI, Ph.D. PATTERSON, THUENTE, SKAAR & CHRIS	Facsimile No. (612) 349-9266				
4800 IDS Center		Teleprinter No.			
80 South Eighth Street Minneapolis, Minnesota 55402-2100	`				
United States of America Agent's registration No. with the C					
Address for correspondence: Mark this check-box where space above is used instead to indicate a special address to					

C1 . 3.7		٠,	
Sheet N	^	_	

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)					
If none of the following sub-boxes is used, this sheet should not be included in the request.					
The address must include post	: ornia 94025	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office			
State (that is, country) of n	ationality:		State (that is, country,) of residence:	
Japan			US		
This person is applicant for the purposes of:	all designated States	all designated the United Sta		the United States of America only the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this che is marked, do not fill in the is marked, do not fill in the is marked).					
State (that is, country) of n	ationality:		State (that is, country	of residence:	
This person is applicant for the purposes of:	all designated States	all designated the United Sta	States except tes of America	the United States of America only the States indicated in the Supplemental Box	
The address must include post	name followed by given name; j al code and name of country. Th at is, country) of residence if no St	ne country of the	address indicated in this	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office	
State (that is, country) of n	ationality:	· · · · · · · · · · · · · · · · · · ·	State (that is, country,	of residence:	
This person is applicant for the purposes of:	all designated States	all designated the United Sta	States except tes of America	the United States the States indicated in the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office					
State (that is, country) of n	ationality:		State (that is, country)	of residence:	
This person is applicant for the purposes of:	all designated States	all designated the United Sta	States except tes of America	the United States the States indicated in the Supplemental Box	
Further applicants and/or (further) inventors are indicated on another continuation sheet.					

			Sheet No3	_	,	
Box No	. V DESIGNATION OF STATE	S	Mark the applicable check-boxes belov	v; at	leas	t one must be marked.
The fol	lowing designations are hereby made	under	Rule 4.9(a):			
Region	nal Patent					
⊠ AP	SL Sierra Leone, SZ Swaziland, T State which is a Contracting State	Z Unite of the	mbia, KE Kenya, LS Lesotho, MV and Republic of Tanzania, UG Uganda, Harare Protocol and of the PCT (if and its control of the PCT)	ZM other	Zan kind	nbia, ZW Zimbabwe, and any othe d of protection or treatment desired
X EA			rbaijan, BY Belarus, KG Kyrgyzstan, M Turkmenistan, and any other State			
⊠ ∙EP	DK Denmark, ES Spain, FI Finlar	d, FR Portu	elgium, CH & LI Switzerland and France, GB United Kingdom, GR Gregal, SE Sweden, TR Turkey, and any he PCT	eece,	ΙE	Ireland, IT Italy, LU Luxembourg
X OA	GA Gabon, GN Guinea, GQ Equantification GA Gabon, TG Togo, and any other	torial State v	nin, CF Central African Republic, CC Guinea, GW Guinea-Bissau, ML Ma which is a member State of OAPI and on dotted line)	li, M a Co	R N ntra	Mauritania, NE Niger, SN Senegal cting State of the PCT (if other kind
Nation	al Patent (if other kind of protection	n or tre	atment desired, specify on dotted line):			
_	United Arab Emirates		M Gambia		N7.	New Zealand
	Antigua and Barbuda		R Croatia			
			U Hungary			
	Armenia					Poland
DE AT	Anetria	X 11	Israel	X	PТ	Portugal
X ATI	Australia	DE TN	V India	X	RO	Romania
	Azerbaijan					Russian Federation
M RA	Rosnia and Herzegovina	X n	P Japan			
	Barbados		E Kenya			
			G Kyrgyzstan			
			P Democratic People's Republic			Singapore
_	Belarus		of Korea			
•			R Republic of Korea			
_	Canada		Z Kazakhstan			
	& LI Switzerland and Liechtenstein					Tajikistan
			K Sri Lanka			I Turkmenistan
	Colombia		R Liberia			Tunisia
		X L	S Lesotho	X	TR	Turkey
	Cuba					Trinidad and Tobago
	Czech Republic					
	Germany			X	ΤZ	United Republic of Tanzania
			A Morocco			Ukraine
	I Dominica		D Republic of Moldova			
-	Algeria					
			GMadagascar			
-			K The former Yugoslav Republic of			
	Spain		Macedonia			
	Finland		•			Yugoslavia
	United Kingdom		(WMalawi			-
	Grenada		X Mexico			
	Georgia					Zimbabwe
			O Norway			

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Supplemental Box

If the Supplemental Box is not used, this sheet should not be included in the request.

- If, in any of the Boxes, except Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No..." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:
- (i) if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. II" and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.
- 2. If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

CONTINUATION OF BOX NO. IV:

ALEXANDER, Wm. Larry; BAXTER, Kimberly K.; BONDI, Michael A.; CHADWICK, Eric H.; CHRISTENSEN, Douglas J.; DARDI, Peter S.; HERBERT, Curtis B.; OLSEN, David A.; ONDERICK, Paul; PATTERSON, James H.; PEDERSEN, Brad; SKAAR, Randall T.; THUENTE, John F.; ULBRICH, Scott G., all of...

PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS Center 80 South Eighth Street Minneapolis, Minnesota 55402-2100 United States of America

and

KLEINSMITH, David NanoGram Corporation 49040 Milmont Drive Fremont, California 94538 United States of America Telephone: (510) 668-5000 Facsimile: (510) 668-5009

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Box No. VI PRIORITY	CLAIM						
The priority of the following	g earlier application(s) is here	eby claimed:					
Filing date	Number	V	Where earlier application	on is:			
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	international application: receiving Office			
item (1) 17 January 2001 17/01/01	60/262,274	US	,				
item (2) 17 January 2001 17/01/01	60/262,273	US		-			
item (3)							
item (4)							
item (5)		,					
Further priority claims	s are indicated in the Supplem	nental Box.	<u> </u>	<u> </u>			
Box No. VII INTERNA Choice of International S international search, indica ISA / US	tion is an ARIPO application, Member of the World Trade Control Trade Co	THORITY Two or more International So-letter code may be used): that search (if an earlier so	y party to the Paris Conve earlier application was fi	competent to carry out the			
Dusc (ady/morninged)							
Box No. VIII DECLARA	ATIONS	·····					
The following declaration check-boxes below and indi	s are contained in Boxes Nos cate in the right column the nu	s. VIII (i) to (v) (mark the a amber of each type of declar	applicable ation):	Number of declarations			
Box No. VIII (i)	Declaration as to the ident	ity of the inventor		:			
Box No. VIII (ii)		Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent :					
Box No. VIII (iii)		licant's entitlement, as at ty of the earlier application	he international filing	:			
Box No. VIII (iv)	Declaration of inventorsh United States of America	nip (only for the purposes o	f the designation of the	:			
Box No. VIII (v)	Declaration as to non-pre	judicial disclosures or exce	eptions to lack of novelty	:			

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heet	No	6

Box No. IX CHECK LIST; LANGUAGE (OF FILING	
This international application contains: (a) the following number of sheets in paper form:	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item): 1. fee calculation sheet	Number of items
request (including declaration sheets) : 6	2. original separate power of attorney	:
description (excluding	3. ☐ original general power of attorney	:
sequence listing part) : 47	4. Copy of general power of attorney; reference number,	
claims : 6 abstract : 1	if any:	:
drawings : 11	5. statement explaining lack of signature	:
Sub-total number of sheets : 71	6. priority document(s) identified in Box No. VI as	
sequence listing part of description (actual number	item(s): 7. translation of international application into (language):	
of sheets if filed in paper form, whether or not also		
filed in computer readable form; see (b) below) : 0	8. separate indications concerning deposited microorganis or other biological material	:
Total number of sheets : 71	 sequence listing in computer readable form (indicate also and number of carriers (diskette, CD-ROM, CD-R or oth 	type er))
(b) sequence listing part of description filed in computer readable form	(i) copy submitted for the purposes of international under Rule 13ter only (and not as part of the	search
(i) only (under Section 801(a)(i))	international application) (ii) (iii) (only where check-box (b)(i) or (b)(ii) is marked	in left
(ii) ☐ in addition to being filed in paper form (under Section 801(a)(ii))	column) additional copies including, where applithe copy for the purposes of international search	icable,
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which the	Rule 13ter	:
sequence listing part is contained (additional	(iii) together with relevant statement as to the identity of the copy or copies with the sequence listing pa	/ urt
copies to be indicated under item 9(ii), in right column):	mentioned in left column	:
	10. other (specify): Transmittal Letter & Return Postc	ard : 2
Figure of the drawings which should accompany the abstract:	Language of filing of the international application: English	,
Next to each signature, indicate the name of the person signature. Peter S. DARDI, Ph.D. (Reg. 39,650)	ning and the capacity in which the person signs (if such capacity is not obvious fr	om reading the request).
	For receiving Office use only	
Date of actual receipt of the purported international application:		2. Drawings:
3. Corrected date of actual receipt due to later timely received papers or drawings complete the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		not received:
5. International Searching Authority (if two or more are competent): ISA /	6. Transmittal of search copy delayed until search fee is paid	
	For International Bureau use only	
Date of receipt of the record copy by the International Bureau:		

This sheet is not ____ t of and does not count

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FEE CALCULATION SHEET

Annex to the Request

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as a sheet of the interational applicat	ion.
For receiving Office	use only
International Application No.	
Date stamp of the receiving Office	
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Applicant's or agent's file reference 2950.07WO01	Date stamp of the receiving Office
Applicant	
NanoGram Corporation	
CALCULATION OF PRESCRIBED FEES	\$240.00 [T]
1. TRANSMITTAL FEE	
2. SEARCH FEE	\$700.00 \s\
Af two or more International Searching Authorities are competent to carry out	the international
search, indicate the name of the Authority which is chosen to carry out the inter	rnational search.)
3. INTERNATIONAL FEE Basic Fee	
Where item (b) of Box No. IX applies, enter Sub-total number of she	eets 7 71
Where item (b) of Box No. IX does not apply, enter Total number of	sheets }
b1 first 30 sheets	\$382.00 ы
b2 41 x \$9.00 =	\$369.00 b2
number of sheets fee per sheet in excess of 30	·
additional component (only if sequence listing part of description is filed in computer readable form under Section 801(a)(i), or	on .
both in that form and on paper, under Section 801(a)(ii)):	`
400 x =	\$0 ыз
Add amounts entered at b1, b2 and b3 and enter total at B	\$751.00 B
Designation Fees	
The international application contains 93 designations.	
$\frac{1}{x}$ \$82.00 = [\$410.00 D
number of designation fees amount of designation fee payable (maximum 5)	
Add amounts entered at B and D and enter total at I	\$1,161.00 ∏
(Applicants from certain States are entitled to a reduction of 75%	of the
international fee. Where the applicant is (or all applicants are) so entitled, to be entered at I is 25% of the sum of the amounts entered at B and D.)	he total
	\$30.00 P
	\$2,131.00
5. TOTAL FEES PAYABLE	· · ·
Add amounts entered at T, S, I and P, and enter total in the TOTAL bo	x
The designation fees are not paid at this time.	
MODE OF PAYMENT	
authorization to charge postal money order postal money order	cash coupons
cheque bank draft	revenue stamps other (specify):
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNTIES mode of payment may not be available at all receiving Offices)	Receiving Office: RO/ US .
	Deposit Account No.: 16-0631
Authorization to charge the total fees indicated above. (This check-box may be marked only if the conditions for deposit account	Date: 17 January 2002
of the receiving Office so permit) Authorization to charge any deficienc	3
or credit any overpayment in the total fees indicated above. Authorization to charge the fee for priority document.	0 1 9 0
Frame PCT/PO(101 (Appear) (Jensey, 2002)	Signature: Kow Light for calculation sheet